

REMARKS

Applicant respectfully requests reconsideration and allowance of the above-identified application. Claims 1-3, 5-9, 22-30, 37-49, and 51-62 are pending, of which claim 1 is an independent method claim, claim 22 is an independent device claim, and claims 48 and 56 are independent system claims. As indicated above, claims 1, 22, 48, and 56 have been amended.

Initially Applicant notes with appreciation the Examiner's withdrawal of the previous grounds of rejection.

In this communication, the Office Action rejects the independent claims under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,014,129 to Umeda et al. ("*Umeda*") in view of U.S. Patent No. 5,929,444 to Leichner ("*Leichner*"). Further, the Office Action rejects the remaining dependent claims under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Umeda*, in view of *Leichner*, and/or further in view of U.S. Patent No. 5,289,275 to Kaplan ("*Kaplan*").¹ Applicant respectfully traverses these grounds of rejection.

Applicant's invention, as claimed for example in independent method claim 1, relates to positioning a cursor on a display screen using a remote control device. The method includes: emitting a signal from a first location to a remote control device at a second location, wherein the signal has an incident direction at the second location; receiving from the remote control device, data corresponding to an angular displacement between the incident direction of the emitted signal and at least one selected axis of the remote control device; using one or more mapping functions or rules to map the received data corresponding to angular displacement of the remote control device into movement of the cursor, wherein said mapping functions or rules are dynamically modified or selected based on (i) a particular computing task a user is performing, or (ii) a particular region of the display screen to which user input is directed; and positioning the cursor on the display screen in response to the mapped data. The other independent claims (i.e.,

¹ Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to do so in the future. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status or asserted teachings of the cited art.

Applicant also notes that the header for the detailed action rejects all of the claims under 35 U.S.C. § 103(a) as being unpatentable over *Umeda* in view of *Leichner*. The body of the detailed action, however, rejects various independent claims under an obviousness type rejection citing also U.S. Patent No. 5,280,275 to Kaplan ("*Kaplan*"). Applicant assumes that the omission of *Kaplan* in the header was a typographical error and will respond as if *Kaplan* had been included therein. If, however, the inclusion of *Kaplan* in the body of the rejection was a typographical error, Applicant respectfully requests that the next communication correct this error so that Applicant has a full and fair opportunity to respond to the rejections of record.

claims 22, 48, and 56) relate to movable remote control devices and computer input systems with similar elements as those described above with regards to claim 1.

As can be seen, Applicant's claimed invention advantageously allows for the mapping functions or rules to be dynamically modified or selected according to a particular computing task a user is performing or the particular region of the display screen at which the cursor is located. For example, when using a remote device that positions a cursor in a text-editing window based on angular displacement thereof, it is sometimes difficult to extend a text selection within a horizontal line without unintentionally slipping the cursor into an adjacent line above or below. This difficulty can be reduced by embodiments described within Applicant's claims by dynamically modifying a mapping function by adjusting the vertical scaling independent of the horizontal scaling when a user enters a text-editing mode. Of course, other modifications of the mapping functions may be desirable, and are encompassed and contemplated within the claims. In any event, these modifications are dynamically made based on (i) a particular computing task a user is performing (e.g., text-editing), or (ii) a particular region of the display screen to which user input is directed (the text-editing window).

Applicant respectfully submits that the combination of *Umeda*, *Leichner*, and *Kaplan* does not render independent claims 1, 22, 48, and 56 unpatentable for at least the reason that the combination either taken individual or as a whole do not disclose or suggest each and every element of these claims. For example, the combination of *Umeda*, *Leichner*, and *Kaplan* does not disclose or suggest the use of mapping functions or rules to map received data corresponding to angular displacement of a remote control device into movement of a cursor, wherein the mapping functions or rules are dynamically modified or selected based on (i) a particular computing task a user is performing, or (ii) a particular region of the display screen to which user input is directed, as recited, *inter alia*, in method claim 1.

Umeda discloses a remote control that detects the inclination of a reference light source and a light receiving section to command a cursor on a screen. Col. 2, ll. 47-55. A detection section includes an iris portion to make the reference light a spot light and detect movement of the spot light toward an x-axis direction and a y-axis direction, where the optical axis is defined as the z-axis. Col. 3, ll. 1-18. As noted by the Office Action, however, *Umeda* does not disclose or suggest the use of mapping functions or rules to map received data corresponding to angular displacement of a remote control device into movement of a cursor, wherein the mapping

functions or rules are dynamically modified or selected based on (i) a particular computing task a user is performing, or (ii) a particular region of the display screen to which user input is directed. Recognizing some of the deficiencies of *Umeda*, the Office Action cites *Leichner*.

Leichner discloses an aiming device that uses radiated energy. The aiming device monitors rotational and angular displacement changes, which are then used in various operations depending on the implementation. For example, when *Leichner* is used for a "shooting practice system, the rotational and angular displacement changes are used to provide technique feedback to the shooter as well as to predict shot placement." *Leichner* col. 5, ll. 12-21. Although *Leichner* does disclose the use of signal strength for determining a rough estimate of distance in order to scale sensitivity of the pointing indicator (*Leichner*, col. 5 ll. 58-61), *Leichner* does not disclose or suggest dynamically modifying or selecting mapping functions or rules based on (i) a particular computing task a user is performing or (ii) a particular region of the display screen to which user input is directed. In fact, *Leichner* at most discloses modifying the sensitivity of a mapping function based on user distance from the display device. *Leichner*, however, does not modify mapping functions or rules based on a particular computing task a user is performing (e.g., text-editing) or based on a particular region of the display screen to which user input is directed (e.g., text-editing window). Accordingly, *Leichner* does not rectify those deficiencies noted above with regards to *Umeda*.

Recognizing some of the deficiencies of *Umeda* and *Leichner* the Office Action cites *Kaplan*. *Kaplan* discloses a graphical control button for a graphical scale to enable users to convey scalar information by controlling the region of the control button on which the cursor is positioned. The Office Action appears to rely on *Kaplan* as allegedly disclosing various elements of Applicant's dependent claims. In fact, *Kaplan* was previously applied against Applicant's independent claims, but was subsequently withdrawn as a basis for rejecting these claims based on Applicant's previous arguments in regards thereto. Accordingly, *Kaplan* does not overcome the deficiencies noted above with regard to *Umeda* and *Leichner*.

Because the combination of *Umeda*, *Leichner*, and *Kaplan*—taken either individually or as a whole—does not explicitly or inherently disclose or suggest all of the elements of Applicant's claim 1, Applicant respectfully submits that the combination does not render claim 1 unpatentable. Applicant notes that the other independent claims (i.e., claims 22, 48, and 56) recite elements with similar features as those recited in claim 1; and are therefore patentably

distinguishable over the cited art of record for at least those reasons stated above with regards to claim 1.

Based on at least the foregoing reasons, therefore, Applicant respectfully submits that the cited art fails to anticipate or make obvious Applicant's invention, as claimed, for example, in independent claims 1, 22, 48, and 56. Applicant notes for the record that the other rejections and assertions of record with respect to the independent and dependent claims are now moot, and therefore need not be addressed individually. Accordingly, Applicant does not acquiesce to any assertions in the Office Action that are not specifically addressed above, and hereby reserve the right to challenge any such assertions in the future if necessary or desired.

Having addressed all of the objections and rejections raised in the Office Action, Applicant respectfully submits that the present application is in condition for allowance and notice to that effect is earnestly solicited. Should the Examiner have any questions regarding this response or the application in general, the Examiner is urged to contact the undersigned at (801) 533-9800.

Dated this 7th day of December, 2005.

Respectfully submitted,



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